

CLAIM LISTING

Claims 1-8 (canceled)

Claim 9 (withdrawn): A method for identifying an inhibitor of GM4,6D activity, said method comprising:

- (a) combining a substrate, a candidate inhibitor compound, and a composition comprising a GM4,6D peptide; and
- (b) observing whether said GM4,6D peptide converts said substrate.

Claims 10-20 (canceled)

Claim 21 (previously presented): A method for treating a subject having an inflammatory disorder characterized by aberrant GM4,6D polypeptide activity or aberrant GM4,6D nucleic acid expression comprising administering to the subject a GM4,6D modulator, thereby treating said subject having an inflammatory disorder.

Claim 22 (withdrawn): A method for treating a subject having a disorder characterized by aberrant cellular fucosylation comprising administering to the subject a GM4,6D modulator, thereby treating said subject having a disorder characterized by aberrant cellular fucosylation.

Claim 23 (previously presented): A method for modulating an inflammatory response in a subject comprising administering to the subject a GM4,6D modulator, thereby modulating an inflammatory response in said subject.

Claim 24 (withdrawn): A method for modulating an cellular fucosylation in a subject comprising administering to the subject a GM4,6D modulator, thereby modulating cellular fucosylation in said subject.

Claim 25 (withdrawn): The method of claim 22, wherein the disorder is a disorder associated with aberrant fucosylation of glycoconjugates.

Claim 26 (currently amended) The method of ~~either of claims 21 or 22~~ claim 21 or claim 23, wherein the disorder is a disorder selected from the group consisting of: arthritis, transplant rejection, asthma, sepsis, reperfusion injury, stroke, infection, and leukocyte adhesion deficiency II.

Claim 27 (currently amended) The method of ~~any one of claims 21-24~~ claim 21 or claim 23, wherein the GM4,6D modulator is capable of modulating GM4,6D polypeptide activity.

Claim 28 (previously presented): The method of claim 27, wherein the GM4,6D modulator is an inhibitor of GM4,6D activity.

Claim 29 (previously presented): The method of claim 27, wherein the GM4,6D modulator is an anti-GM4,6D antibody.

Claim 30 (withdrawn): The method of claim 27, wherein the GM4,6D modulator is a GM4,6D polypeptide comprising the amino acid sequence of SEQ ID NO:2 or SEQ ID NO:3, or a fragment thereof having GM4,6D activity.

Claim 31 (withdrawn): The method of claim 27, wherein the GM4,6D modulator is a polypeptide encoded by a naturally occurring allelic variant of the nucleotide sequence of SEQ ID NO:1.

Claim 32 (withdrawn): The method of claim 27, wherein the GM4,6D modulator is a polypeptide having GM4,6D activity, wherein the polypeptide is encoded by a nucleic acid molecule which hybridizes with the nucleotide sequence of SEQ ID NO:1 in either 4X SCC at 65°C or 50% formamide and 4X SSC at 42°C.

Claim 33 (withdrawn): The method of any one of claims 21-24, wherein the GM4,6D modulator is capable of modulating GM4,6D nucleic acid expression.

Claim 34 (withdrawn): The method of claim 33, wherein the GM4,6D modulator is a nucleic acid molecule comprising the nucleotide sequence of SEQ ID NO:1, or a fragment thereof.

Claim 35 (withdrawn): The method of claim 33, wherein the GM4,6D modulator is a nucleic acid molecule comprising a naturally occurring allelic variant of the nucleotide sequence of SEQ ID NO:1.

Claim 36 (withdrawn): The method of claim 33, wherein the GM4,6D modulator is a nucleic acid molecule encoding a polypeptide having GM4,6D activity, wherein the nucleic acid molecule hybridizes with the nucleotide sequence of SEQ ID NO:1 in either 4X SCC at 65°C or 50% formamide and 4X SSC at 42°C.

Claim 37 (withdrawn): The method of claim 35, wherein the GM4,6D modulator is a nucleic acid molecule encoding a polypeptide comprising the amino acid sequence of SEQ ID NO:2 or SEQ ID NO:3, or a fragment having GM4,6D activity.

Claim 38 (new): A method for treating a subject having an inflammatory disorder characterized by excessive GM4,6D activity or excessive GM4,6D nucleic acid expression, comprising administering a therapeutically effective amount of an inhibitor capable of inhibiting the GM4,6D activity, wherein GM4,6D comprises SEQ ID NO:2 or SEQ ID NO:3.

Claim 39 (new): The method of claim 38, wherein the inflammatory disorder is a disorder selected from the group consisting of arthritis, transplant rejection, asthma, sepsis, reperfusion injury, stroke, infection, and leukocyte adhesion deficiency II.

Claim 40 (new): The method of either of claims 38 or 39, wherein the GM4,6D inhibitor is an antibody capable of binding to a polypeptide comprising the amino acid sequence of either SEQ ID NO:2 or SEQ ID NO:3.

Claim 41 (new): The method of claim 40, wherein the antibody is a monoclonal antibody.

Claim 42 (new): The method of claim 40, wherein the antibody is a polyclonal antibody.